

Employees receive recognition for outstanding work

JSC Acting Director George Abbey recognized JSC employees last week in an awards ceremony held at Teague Auditorium.

More than 50 employees received Space Act and Suggestion awards. The recipients received a monetary award along with a plaque commemorating their special achievements.

In addition, a certificate of appreciation from the NASA Software Advisory Council was given to Marvin LeBlanc of the Control Center Systems Division.

Suggestion awards were presented to Leslie Keener and Deborah Mast of the Office of the Comptroller, Vann Jones of the Procurement Management Office, Daniel Deger of the Space Flight Training Division,

John Thiel of the Space and Life Sciences Business Management Office, Donald Curry of the Structures and Mechanics Division, Richard Bozeman, Joseph Trevathan and Gregory Aber of the Propulsion and Power Division, James Akkerman of the Engineering Directorate, Joseph Trombley, Charles Verostko, Marybeth Edeen, Daniel Barta and Charles Verostko of the Crew and Thermal Systems Division, and Steven Koontz of the Manufacturing, Materials and Process Technology Division.

Tech Brief awards were presented to Michael Pham of the Propulsion and Power Division, Robert Trevino of the JSC Projects Office, Jay Wright of the Institutional Safety and Quality Division, Paul Coan of the Information Services Division, Mark Rorvig

of the Technology Systems Division and Thomas Goodwin, Peggy Whitson, Clarence Sams, Lakshmi Putcha, Roger Billica, Duane Pierson and Laurie Aten of the Medical Sciences Division.

Cosmic Software Author awards were presented to Edward Chimenti, Steven Rickman and Robert Vogt of the Structures and Mechanics Division and Horst Ehlers of the Manufacturers Materials and Process Technology Division.

Patent application awards were presented to Michael Eubanks of the Engineering Directorate, Horacio de la Fuente and Anthony Dao of the Structures and Mechanics Division, George Salazar, Dena Haynes, G. Dickey Arndt and Thanh Nguyen of the Avionics Systems Division, Larry Li,

Dennis Wells and Jane Malin of the Automation Robotics and Simulation Division, Dennis Morrison of the Medical Sciences Division and Jeanne Crews and Eric Christiansen of the Earth Science and Solar System Exploration Division.

Space Act Board awards were presented to Mark Rorvig, Robert Shelton, Christopher Ortiz and Huyen-Anh Ly of the Technology System Division, Robert Savely of the Information Systems Directorate and Peggy Whitson of the Medical Sciences Division.

Several contractors received honorable mention for the Software of the Year award including, Matthew Barry of Rockwell, Steven Weismuller and Kevin Scott of Management Systems Designers and David Hasan of Lincom.

Employees honored at launch

Twenty-nine JSC civil service and contractor employees watched the Nov. 12 launch of STS-74 on the second mission to dock with the Russian Mir Space Station at Kennedy Space Center as recipients of the Space Flight Awareness Award.

The honorees also received a VIP tour of KSC and attended a reception held to recognize their dedication to quality work.

Astronaut Rick Linnehan presented all the honorees with framed certificates and pins.

Civil service honorees included John Albright of the Propulsion and Power Division; Pam Johnson of the Structure and Mechanics Division; Scott Swan of the Crew and Thermal Systems Division; Susan J. Anderson of the Human Resources Office; David Beverly of the Safety, Reliability and Quality Assurance Directorate; Greg Della Longa of the Business Management Directorate; Heibert Epps of the Reconfiguration Management Division; Georgie Huepers of the Space Flight Training Division; Georgia Piwonka of the Mission Operations Directorate Management Services Office; Sandy Gordon from the Financial Management Division in the Office of the Comptroller; Tom Harmon from the Space Shuttle Program Office; Kathy Leary of the Phase One Program Office; Henry Littlejohn of the Aircraft Operations Division in the Flight Crew Operations Directorate; and Ron Williams of the Facility Development Division in the Center Operations Directorate. Kathy Abotteen of MOD was unable to attend the launch.

Contractor honorees were: Bob Baron, Valerie Matthews, Bob McMahon and Jeff Semrau of Loral; John Christian, John Teel and Marilyn Waegner of Lockheed Martin; Natalya Doroshenko of TechTrans; Carl Elmore of Rothe; Dale Long from AlliedSignal White Sands; Kim McGallion of Johnson Engineering; Terry Michael of Hernandez Engineering Inc. and Chris Provenzana of Johnson Controls.



Photo by Jennifer Casey

Space Artist Robert McCall demonstrates painting techniques to students from Pleasantville Elementary School during a creative workshop held at Space Center Houston.

Space art on display at Space Center Houston

By Karen Schmidt

Space Center Houston is featuring an art exhibit by space artist Robert McCall and local elementary students were recently given art lesson by the famous artist.

The exhibit, "A Vision of the Future, The Art of Robert McCall," features 71 original works including drawings, paintings, murals, stamps, patches and posters. The works span two decades of spaceflight.

"I want to communicate my own personal sense of wonder about the universe, about the environment of outer space, about the potential for the future—on earth or wherever," McCall said in a recent article in Air and Space magazine.

The works include a vision of the International Space Station with the Hubble Space Telescope being released from a shuttle's cargo bay. Other high-

lights include images inspired by Apollo missions, the first shuttle flight, Moon and Mars missions and futuristic designs of space tugs and life in the solar system.

Students from Pleasantville Elementary were given their own art lesson by McCall last month. The students were part of a two-hour workshop and created their own interpretation of McCall's Peace on Earth/Peace in Space with the artist giving guidance on painting techniques.

McCall's work is featured in a variety of space museums including a six-story acrylic mural—The Space Mural-A Cosmic View—in the National Air and Space Museum in Washington, D. C. Other works have been featured in films 2001: A Space Odyssey and The Black Hole.

The exhibit will be featured at Space Center Houston through March 1996.

'Lights on for Life' next week

JSC employees are encouraged to participate in next Friday's "Lights on for Life," in remembrance of people killed or injured in alcohol-related crashes.

This year's one-day nationwide headlight observance is intended to serve as a reminder of the dangers of impaired driving and that law enforcement throughout the nation will target impaired drivers during the holiday season.

Senior Clinton Administration offi-

cials, national law enforcement leaders and highway safety advocates will kick-off the national impaired driving prevention and enforcement initiative Thursday in a Washington, D.C. ceremony.

"Lights on for Life" is sponsored by the National 3D Prevention Month Coalition. It is the prelude to "National Holiday Lifesaver Weekend," a national operation sponsored by law enforcement administrators to bring attention to impaired driving laws.

SCH offers holiday hours

Space Center Houston will offer extended holiday shopping hours for the next two weeks.

Employees may shop for space-related Christmas gifts from 6-9 p.m. Dec. 11 and 18 at the Space Trader

Gift Shop. NASA and contractor badged employees also will receive an additional 10 percent discount this year. Badges must be presented at the time of purchase to receive the discount.

Teaching via digital video

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work and adapt to living in space. The students were able to ask questions and see first-hand what the "crew" was explaining.

The face to face interaction between the students and the "crew" was "the most effective I have ever seen in a videoconference of this type," said Robert Nahory, director of Education Applications Research at Bellcore Science Labs in New Jersey, who co-sponsored the outreach. Connections also were made to the Christa McAuliffe Foundation meeting held in New Hampshire.

The Space Station Utilization Office's Outreach and Education Integrated Product Team uses the mock-ups and videoconferencing to link-up with schools nationally and internationally employing the latest in digital technology for science distance-learning.

"This videoconferencing capability is just now becoming possible with the availability of desktop videoconferencing on personal computers and Integrated Services Digital Network lines," Dean said. "The team is working with the mock-up personnel and the Space and Life Sciences Directorate to develop a low cost multi-media platform that will allow videoconferencing from the station mockups in support of educational activities, science conferences, payload development and crew training."

The effectiveness and ease of this type of videoconferencing has potential application to the International Space Station. Families of crew members would not have to travel to JSC to communicate with their relatives. Instead, with the availability of ISDN lines and desktop video units, messages to and from family could routinely originate from home or the station on personal computers.

To maximize resources, the team has augmented existing facilities for the outreach and education program.

"We are trying not to bend our budget by developing unique items that would be used for education outreach only," Dean said. "We will be able to use the same system for crew training for the station."

This was the third use of the ISDN communication lines to support an interactive video event. The first was the AIAA Space Medicine and Life Sciences Conference held in April. Conference attendees were able to see the U.S. Laboratory Module interior and interact with station "crew members." In August, visitors to the space station exhibit at the Minnesota State Fair were surprised to be able to see and talk to astronauts Jim Buchli, Jeff Wisoff and Bob Cabana via videoconference from Bldg. 9, Dean added.

Two more video conferences are planned for December.

Galileo information on the Internet

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to alternate gusts and waning of the solar wind.

"As the solar wind velocity increased, the shock moved inside the position of the spacecraft leaving Galileo again in the solar wind," said Margaret Galland Kivelson of the University of California at Los Angeles, the principal investigator on Galileo's magnetometer experiment.

This crossing and recrossing of the shockwave happened several times, she said, between the first shock encounter on Nov. 16, when the spacecraft was about nine million miles from Jupiter, and Nov. 26 when Galileo finally crossed the main bow-shock at about six million miles out from Jupiter's cloud tops.

The magnetometer science team

also found the first direct evidence that the Jovian magnetosphere was either unaffected or had recovered in the aftermath of last year's impact of Comet Shoemaker-Levy with Jupiter. Some scientists had theorized that the magnetosphere might have been modified significantly by the violent impact, but that appears not to be the case, according to data from Galileo.

Meanwhile, Galileo engineers report that work was completed on the spacecraft's tape recorder to assure its readiness for recording data during Thursday's atmospheric probe descent. Final fine-tuning of the spacecraft's flight path was completed last week.

The Galileo home page may be accessed on the Internet at URL: <http://www.jpl.nasa.gov/galileo>.

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STS-74, stepping stone to station

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get them something that they wanted and then bring it up there and give it as a gift really emphasized to them that people on the ground cared. That was a really important lesson that we need to take forward."

Mission Specialist Jerry Ross reflected on the future of space and how this mission tied into future plans for a permanent orbiting outpost.

"This mission allowed us the opportunity to see what the International Space Station is going to be about," Ross said. "And, folks if you think you have been working hard and you think the challenges and the excitement that you have now are something, just wait a couple more years until we start assembling the station and get folks up there that are working day in and day out pushing

back the frontiers of science and crossing very broad horizons. It is going to be tremendous and the benefits that we are going to realize from that program are going to be far-reaching and they are going to be great for all mankind."

Mission Specialist Bill McArthur praised the astronauts' families and Mir 20 crew.

"When you get within a few weeks of the flight you become so focused, it takes a special tolerance on their part because lo and behold you are not Dad and husband anymore," McArthur said. "When we talk about the success of the docking and the logistics transfer...the Mir crew gets 50 percent of the credit. There was no doubt they were completely committed to this as a joint venture and to the success of our docking."